## REMARKS

Claims 1-24 are pending.

Claims 1-7, 9-17, and 20-22 stand rejected under 35 USC §103(a) as being allegedly unpatentable over Takebayashi (US 4,783,802) in view of Bossemeyer, Jr. (US 6,012,027).

Claims 8, 18, 23 and 24 are allowable if rewritten in independent form.

### Changes in the Claims:

Claims 1, 11, and 21 have been amended in this application to further particularly point out and distinctly claim subject matter regarded as the invention.

Support for the amendments may be found in the present specification at page 11, lines 15 to 19: "In the reference feature distortion adding section 13, (normal) random numbers ... are generated for each feature vector of the reference feature time-series signal ...". No new matter has been added.

Claims 2 and 12 have been canceled.

### Rejection under 35 USC §103(a) – claims 1-7, 9-17, and 20-22

Claims 1-7, 9-17, and 20-22 stand rejected under 35 USC §103(a) as being allegedly unpatentable over Takebayashi (US 4,783,802) in view of Bossemeyer, Jr. (US 6,012,027). This rejection is respectfully traversed.

Under MPEP §706.02(j), in order to establish a prima facie case of obviousness required for a §103 rejection, three basic criteria must be met: (1) there must be some suggestion or motivation either in the references or knowledge generally available to

modify the reference or combine reference teachings (MPEP §2143.01), (2) a reasonable expectation of success (MPEP §2143.02), and (3) the prior art must teach or suggest all the claim limitations (MPEP §2143.03). See In re Royka, 490 F. 2d 981, 180 USPQ 580 (CCPA 1974).

Takebayashi describes a learning method of reference pattern vectors for speech recognition. A noise adding section adds noise from the noise generator to the time series of the speech feature parameter from the acoustic analysis section. See Col. 7, lines 34-36. The feature vector extracts the feature vectors from the time series.

Bossemeyer describes a speech reference enrollment method.

Applicant respectfully submit that the proposed combination of Takebayashi and Bossemeyer does not describe or suggest all of the claim limitations of claims 1-7, 9-17, and 20-22. In particular, neither Takebayashi nor Bossemeyer suggest four kinds of distortion signals: reference feature time-series signal, input feature time-series signal, reference coded time-series signal, and input coded time-series signal. Further, neither Takebayashi nor Bossemeyer teach that when the distortion is when the distortion is added to the reference feature time-series signal or the input feature time-series signal, the addition of the distortion is performed **for each feature vector**. The distortion is added to a signal at least after the feature vectors are calculated or extracted from the initial time-series signal, and the addition of the distortion is performed for each feature vector when the distortion is added to the reference feature time-series signal or the input feature time-series signal. On the other hand, Takebayashi actually describes adding noise before the feature vectors are extracted. See FIG. 5 of Takebayashi.

Applicant therefore submits that the rejection based the <u>Takebayashi</u> and

<u>Bossemeyer</u> reference is improper and should be withdrawn. Thus, Applicant submits

that claims 1-7, 9-17, and 20-22 recite novel subject matter which distinguishes over any

possible combination of <u>Takebayashi</u> and <u>Bossemeyer</u>.
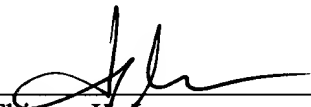
**<u>Conclusion</u>**

For all of the above reasons, applicants submit that the amended claims are now

in proper form, and that the amended claims all define patentable subject matter over the

prior art. Therefore, Applicants submit that this application is now in condition for

allowance.

**Request for allowance**

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited. If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Respectfully submitted,
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